

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently amended): For use with a land vehicle, an air dam comprising a plurality of ~~flexible~~ pneumatically-actuated deflector cells disposed adjacent to one another on an air dam frame that is to be mounted to an underside of the land vehicle, the air dam frame being configured to extend along the underside of the land vehicle, wherein with the air dam frame mounted to the land vehicle the deflector cells are each coupled to the air dam frame in a lateral spatial arrangement along the underside of the land vehicle and, when deployed, project from an upward position in a generally downward direction from the underside of the vehicle into a space between the underside of the vehicle and the ground.

Claim 2 (Previously presented): The air dam of claim 1 wherein each deflector cell can assume a stowed position and a deployed position; wherein when the cells are in the deployed position they project from the underside of the vehicle to form the air deflecting air dam, forming a barrier covering a substantial portion of the ground clearance between the land vehicle and the ground.

Claim 3 (Original): The air dam of claim 2 comprising an actuator that selectively actuates the plurality of deflector cells between the stowed position and deployed position.

Claim 4 (Previously presented): The air dam of claim 1 wherein each deflector cell is generally cylindrically shaped.

Claim 5 (Canceled)

Claim 6 (Previously presented): The air dam of claim 4 wherein each of said generally cylindrically shaped deflector cells include an internal bladder.

Claim 7 (Previously presented): The air dam of claim 4 wherein each of said generally cylindrically shaped deflector cells is made from impact resistant elastomeric material.

Claim 8 (Previously presented): The air dam of claim 1 wherein the air dam frame includes nipples onto which the plurality of flexible deflector cells are press fit.

Claim 9 (Previously presented): The air dam of claim 7 wherein said impact resistant elastomeric material is silicon rubber.

Claim 10 (Previously presented): The air dam of claim 9 wherein the durometer of the silicon rubber is substantially equal to 60.

Claim 11 (Previously presented): The air dam of claim 8 wherein the nipples includes nipples that are adjacent to one another.

Claim 12 (Previously presented): The air dam of claim 8 wherein an outer periphery of each nipple includes one or more barbs for engaging an inner surface of the flexible deflector cells.

Claim 13 (Currently amended): The air dam of claim 1 comprising ~~[[one]]~~ two or more air dam frames, each supporting at least one of said plurality of flexible deflector cells.

Claim 14 (Previously presented): The air dam of claim 13 wherein at least one of the one or more air dam frames extends laterally across a front of the vehicle.

Claim 15 (Previously presented): The air dam of claim 13 wherein at least one of the one or more air dam frames is disposed on a bottom surface of the vehicle and has a generally ogival shape having a sharpness in the approximate range of 0.5-3.5 that originates at a front

portion of the vehicle and radiates toward a rear portion of the vehicle such that the deflector cells route wind that encounters the vehicle between front and rear wheels of the vehicle.

Claim 16 (Currently amended): The air dam of claim 13 wherein at least one of the one or more air dam frames is disposed on a bottom surface of a trailer carried by the vehicle and wherein the air dam has a generally ogival shape having a sharpness in [[the]] an approximate range of 0.5-3.5 that originates at a middle portion of the trailer and radiates toward a rear portion of the trailer such that the deflector cells route wind that encounters the ~~wheels and wheel assemblies~~ trailer forward of a wheel assembly of the trailer.

Claim 17 (Currently amended): The air dam of claim 13 wherein at least one of the one or more air dam frames is disposed on a bottom surface of a trailer carried by the vehicle and wherein the air dam has a generally ogival shape having a sharpness in [[the]] an approximate range of 0.5-3.5 that originates at a rear portion of the trailer and radiates toward a front portion of the trailer such that the deflector cells route wind that encounters the trailer aft of ~~the rear wheels~~ a rear wheel assembly of the trailer.

Claim 18 (Canceled)

Claim 19 (Previously presented): The air dam of claim 8 wherein the plurality of flexible deflector cells are connected to a respective nipple of said nipples on the air dam frame with a circular clamp.

Claim 20 (Canceled)

Claim 21 (Canceled)

Claim 22 (Currently amended): A method for deflecting air encountered by a land vehicle having a frame suspended above the ground by a plurality of wheels, the method comprising:

suspending a ~~bank~~ plurality of adjacent flexible inflatable air dam cells between the vehicle frame and the ground in a lateral spatial arrangement spanning along an underside of the vehicle frame, wherein the lateral spatial arrangement comprises a plurality of inflatable air dam cells arranged side by side relative to each other to collectively span a portion of a width of the land vehicle;

maintaining the inflatable air dam cells in a stowed position adjacent to the underside of the vehicle frame when the inflatable air dam cells are not deployed; and

inflating the inflatable air dam cells to extend the inflatable air dam cells in a downward direction generally away from the underside of the vehicle towards the ground when the inflatable air dam cells are deployed to route wind around a wheel assembly provided to the land vehicle.

Claim 23 (Previously presented): The method of claim 22 wherein the flexible air dam cells comprise a plurality generally cylindrical impact resistant elastomeric cells.

Claim 24 (Currently amended): The method of claim ~~[[23]]~~ 22 wherein ~~said impact resistant elastomeric cells are made from a silicon rubber having a durometer substantially equal to 60~~ said maintaining the inflatable air dam cells in the stowed position comprises asserting a biasing force on the inflatable air dam cells with a material in its approximate natural shape when the inflatable air dam cells are in the upward position, and said inflating the inflatable air dam cells comprises establishing a suitable fluid pressure in the inflatable air dam cells to overcome the biasing force exerted on the inflatable air dam cells by the material to extend the inflatable air dam cells in the downward direction.

Claim 25 (Currently amended): The method of claim 22 wherein the step of suspending a bank of adjacent flexible air dam cells between the vehicle frame and ground further comprises mounting the air dam cells on a bottom surface of a trailer carried by the vehicle and wherein the air dam has a generally ogival shape having a sharpness in the approximate range of 0.5-3.5 that originates at a middle portion of the trailer and radiates toward a rear portion of the trailer such that the deflector cells route wind that encounters the ~~wheels and wheel assemblies~~ trailer forward of a wheel assembly of the trailer.

Claim 26 (Currently amended): A system for reducing aerodynamic drag of a ~~motorized or non-motorized~~ wheeled vehicle, the system comprising:

a mounting fixture ~~being adapted to be~~ supported to an underside of a vehicle frame, the mounting fixture ~~having comprising a plurality of interior passages for conveying a fluid from a fluid source to be delivered to a plurality of nipples projecting from the mounting fixture toward the ground, each of the nipples defining a passage through which the fluid is to exit the nipple;~~
and

an arcuately-shaped resiliently deflectable air barrier assembly comprising a plurality of independently flexible cells that ~~are to be coupled to the underside of the vehicle by the mounting fixture to extend from the underside of the wheeled vehicle to cover and extend along a substantial portion of the ground clearance between the underside of the wheeled vehicle and the ground when deployed,~~ each of the plurality of flexible cells being ~~independently~~ secured to ~~a respective nipple at least one of said plurality of nipples projecting from the mounting fixture and comprising a bladder to be placed in fluid communication with at least one of the nipples when the flexible cells are secured to the nipples for receiving the fluid discharged through the passage of the at least one nipple, wherein the flexible cells are adjustable to extend into the ground clearance between the underside of the wheeled vehicle and the ground when the fluid is received within the bladder.~~

Claim 27 (Currently amended): The system of claim 26 wherein ~~each of the flexible cells comprise an impact resistant elastomeric cylinder having first and second ends said first end having an opening for receiving and attaching to said respective nipple and said second end extending from said first end to the ground the bladder of two or more, but less than all of the flexible cells is in fluid communication with a common one of the interior passages provided to the mounting fixture and the two or more of the flexible cells each receive the fluid from the common one of the interior passages.~~

Claim 28 (Previously presented): The system of claim 26 wherein the mounting fixture is disposed on a bottom surface of a trailer carried by the vehicle and wherein the air barrier has a generally ogival shape having a sharpness in the approximate range of 0.5-3.5 that originates at

a middle portion of the trailer and radiates toward a rear portion of the trailer such that the deflector cells route wind that encounters the wheels and wheel assemblies of the trailer.